

Subject: Investigation Report Concerning Drum Disposal and Groundwater Contamination at L.E. Carpenter Co., Morris County, Wharton, New Jersey
Date: 28 August 1979, and 4 October 1979: Phases I and II

Prepared by: Emergency Response and Inspection Branch

I. Background

L.E. Carpenter Co. is engaged in the manufacture of vinyl coated wall coverings. EPA was first made aware of a problem at this facility on 30 January 1975 when a fish kill was reported in the Rockaway River downstream from the Carpenter location. Subsequent investigation by an EPA representative disclosed that a dewatering operation from a newly excavated pit had caused the spill. It was during this incident that EPA became aware of a soil saturation and possible groundwater contamination problem resulting from improper waste product storage. The plant engineer at Carpenter Co. stated waste products had been buried behind their facility from 1965 through 1970. He could not estimate how many drums had been disposed of during that time. Since 1970 the buried drums were covered with local fill material, and a scavenger company was employed to haul away the waste products generated by the facility. Waste products are generated at a rate of 8 to 10 drums per week. Waste products have been accumulating on site since early 1979 due to the company's inability to locate a waste hauler. Presently, approximately 450 55-gallon drums are located in the drum holding area and additional drums (approximately 100) are being stored to the northwest of the coating shop. Since late 1975 L.E. Carpenter Co. has retained Wehran Engineering Corp. (a consulting firm) to study the buried waste problem and to propose a solution to remove and properly dispose of the waste sludge and drums from their facility. A proposal from Wehran Corp. is to be submitted to NJDEP on Friday, October 5, 1979.

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In addition to the waste disposal problem, L.E. Carpenter Co. is subject to and in violation of 40 CFR 112 by not implementing an SPCC plan. After deliberation on 11 September 1975 it was agreed that a penalty assessment of \$4,000.00 for failure to have an SPCC plan would be accepted and EPA would waive prosecution for failure to implement an SPCC plan.

II. Nature of the Materials Disposed of at the Site

Waste products from L.E. Carpenter Co. are stored in 55-gallon drums behind the facility. A list of the products stored in 1975 is attached (Enclosure #3). Officials at Carpenter Co. indicated that this list is still current.

III. Description of the Site

The area used in the past for waste product disposal is about 1½ acres of which 6,000 square feet is presently in use. The area in use appears heavily saturated with waste products and evidence of recent pooling was present. The topography of the area is gently sloping towards the Rockaway River approximately 200 feet away. Approximately 450 drums were being stored in a relatively orderly fashion at the time of the inspection. Some appeared dented and showed signs of leakage at one time or another. Directly adjacent to the drum storage area are 4-6,000 gallon, semiburied tanks, which contain the following products: dioctylphthalate, xylene (xylol), naptha, epoxidized soybean oil. These tanks are surrounded by a concrete dike wall and set on an earthen base. During excavation in 1975 the integrity of the dike wall was breached and was never repaired. Behind the 4 storage tanks is the area where wastes were buried. This area is approximately 250 square feet and is cordoned off by a snow fence. Although grass-like vegetation grows along the perimeter of this area, no vegetation

was observed growing on the surface of the disposal area. Also, there appeared to be some damage to trees near the buried waste area due to possible groundwater contamination.

IV. Description of the Surrounding Area

L.E. Carpenter Co. is located on the main street through Wharton, New Jersey. The closest private residence to the facility is approximately 1/4 mile away. The Rockaway River flows 200 feet from the disposal site and is used as a water source for Jersey City and Wharton Public Water Works. To the north of the L.E. Carpenter location is a compressed gas facility operated by Air Products Co. The facility is bounded by the Rockaway River to the south and some residential dwellings on Ross Street to the northwest.

V. Geology

The L.E. Carpenter Co. facility lies in a 100 year floodplain. Underlying soil is a granular, unconsolidated sediment consisting of glacial outwash with bedrock appearing approximately 70 feet below the surface. The seasonal water table lies 4 to 5 feet below the surface. Recharge of the aquifer is considered to be "instant" according to George Klep, hydrologist for NJDEP. Mr. Klep also stated that there are indications of hydraulic connections between the waste product lagoon and the Rockaway River and Mr. Klep cited one case where the 4-6,000 gallon storage tanks previously mentioned were reportedly buoyed out of their semiburied position due to an unusually high water condition in the Rockaway River. In one area where a soil profile was observed (a pit approximately 4-5 feet deep), soil saturation was found to extend 1 to 1½ feet below the surface and the pit contained an amber liquid.

During an interview on 4 October 1979 with Mr. Henry Jarrett, plant engineer for Carpenter Co., it was indicated that the factory was built over an old

abandoned iron ore mine and that 2-300 foot deep mine shafts are known to exist under their facility. A question was raised as to the possibility of waste products being dumped into the abandoned mine shafts, but Mr. Jarrett stated this was not a company practice. It should be noted, however, that no tests of the shafts have been made nor is their exact location known.

VI. Sampling and Chemical Analysis of Samples

No formal sampling program has been initiated by any local, state or federal environmental agency. However, several samples have been taken since the 1975 spill. After the initial fish kill a sample was taken by the New Jersey Bureau of Fisheries. The analysis of the sample showed a mixture of xylene, parafins, phthalate esters (unquantified) and .006 ppm mercury (the Hg standard for drinking water is currently no more than .002 ppm). In May 1979 the Wharton Water Works conducted routine sampling of their well #3 on Princeton Avenue, Wharton, in anticipation of possibly drawing from it for public use. Resultant analysis of the water showed 100 ppb xylene concentration which was thought to be a contaminant from the Carpenter facility. Copies of the sample analyses are attached.

VII. Status of Local and State Involvement

The L.E. Carpenter Co. site has been visited on numerous occasions by local and state environmental agencies. State action is pending a proposal from Carpenter concerning a solution to their waste disposal problem.

VIII. Discussion of Imminent Hazard Aspects of Site

Based upon observations at the L.E. Carpenter Co. site a potential exists for both groundwater and surface water contamination. The incident at Princeton Avenue well #3 in March 1979 indicates that xylene contamination from the Carpenter site may have already occurred. Runoff from the drum holding area

is evident and uncontrolled resulting in direct discharge of presumably contaminated runoff into a feeder stream of the Rockaway River. NJDEP has suggested Carpenter Co. construct site wells to monitor groundwater contamination, however, no action has been initiated regarding this. Although Carpenter Co. no longer disposes of their waste on their facility, a sizeable problem exists concerning both their past buried waste and the drum holding area. In the absence of analytical data on the extent to which surface runoff is contaminated, the primary hazard of the site appears to be contamination of groundwater. Action recommended regarding this site is monitoring of state activities designed to rectify the site hazards.

Attachments:

- 1- Site diagram
- 2- Photographs (3 pages)
- 3- Coating compound ingredients
- 4- Dye house and print shop chemicals
- 5- PVC waste sludge analysis
- 6- Wharton well sample analysis, 8 May 1979
- 7- Wharton well sample analysis, 20 May 1979
- 8- Wharton well sample analysis, 25 May 1979
- 9- Carpenter pit sample analysis

L.E. CARPENTER CO.
WHARTON, NEW JERSEY

ROSS STREET

AIR PRODUCTS CO. PROPERTY

NORTH MAIN STREET

PRINTING SHOP

OFFICE

OFFICE

COATING SHOP

OPEN PIT

STORAGE TANK AREA

DRUM HOLDING AREA

BURIED WASTE AREA

BOILER HOUSE

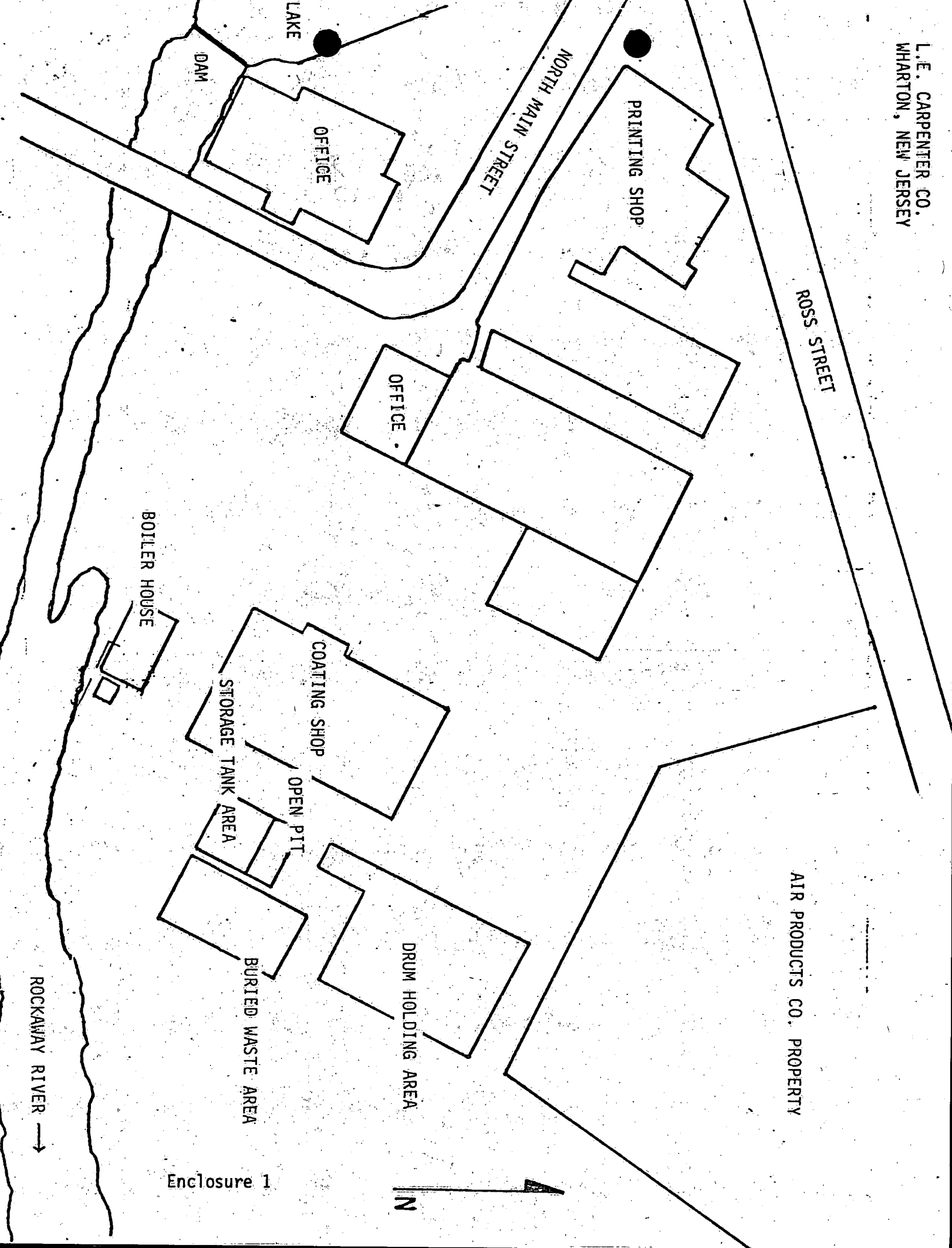
DAM

LAKE

ROCKAWAY RIVER →

Enclosure 1

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View of buried waste area
(Note dead trees in background)



Storage tanks as viewed from
buried waste area.



View of buried waste area showing
pooling.



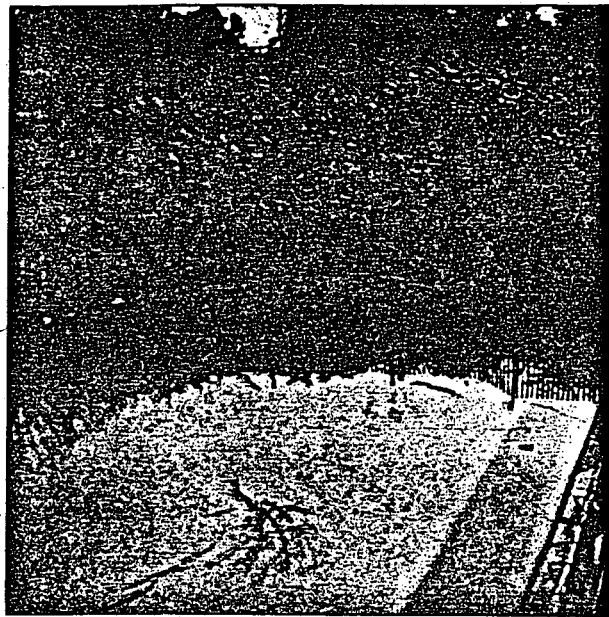
Buried waste area.



Drum holding area.



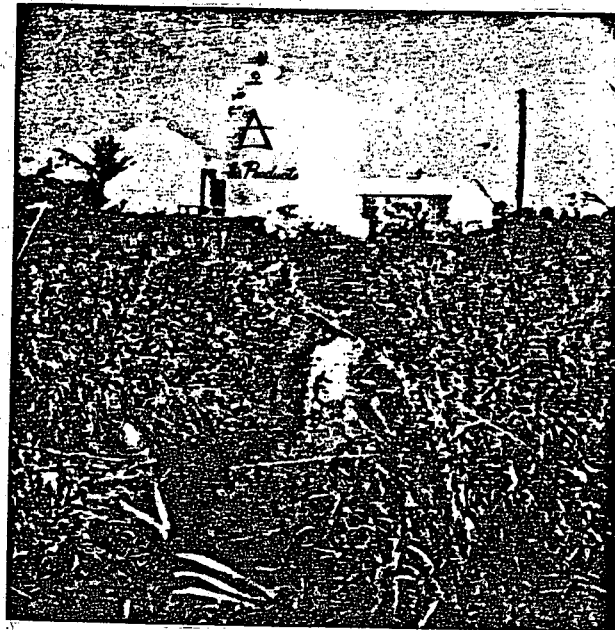
Drum holding area showing pooling and ground saturation.



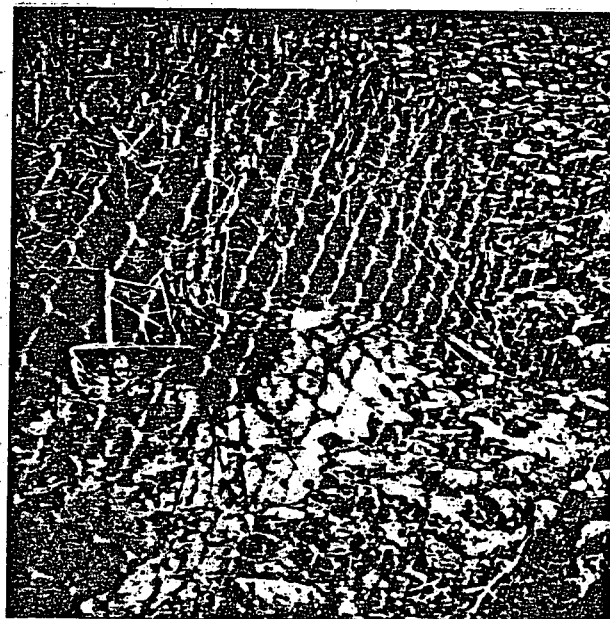
Open pit adjacent to storage tanks.



Additional drum storage.



Open trench behind buried waste area.



Oily sheen visible from Carpenter Co. (property owned by Air Products Co.)

All photos taken by Kerry T. Webster, 4 October 1979, SX-70A Camera.

HAZARDOUS WASTE SITE DOSSIER—L.E. CARPENTER COMPANY

File

This site has been referred to EPA by the New Jersey DEP. The L.E. Carpenter Company is apparently responsible for a pond or lagoon on the periphery of this property, which contains hazardous chemicals. Recent excavation for a sewer line indicated that the pond or lagoon is leaching its contents into the nearby ground water. It seems probable that chemicals from the site are contaminating municipal wells. The company is about to install monitoring wells to determine whether leachate from its property is in fact the source of the municipal well contamination.

Members of the General Enforcement Branch will further examine the files on this case at the DEP on August 17, 1979. New Jersey has indicated a willingness to give this case to EPA for further action, if we are interested.

Date?

may be ripe for enforcement